

PATENT
Customer No. 22,852
Attorney Docket No. 4853.0023-02

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
Y. Sakagami et al.) Prior Appln. Group Art Unit: 1653
Serial No.: Not yet assigned) Examiner: Gupta, A.
(Divisional of 09/373,995))
Filed: Concurrently)
For: PLANT GROWTH FACTOR)

Commissioner for Patents and Trademarks
Washington, DC 20231

Sir:

PRELIMINARY AMENDMENT

Prior to the examination of the above application, please amend this application as follows:

IN THE CLAIMS:

Please cancel claims 1-17 without prejudice or disclaimer, and amend claims 18 and 19 as follows:

18. (Amended) A plant growth factor peptide obtained by collecting cells from liliaceous plants, incubating the collected cells in a plant cell cultivation medium, and separating said plant growth factor peptide from the cells through centrifugation.

19. (Amended) A plant growth factor peptide, wherein the plant growth factor peptide has the following physico-chemical properties:

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

- a) it is soluble in water, but is hardly soluble in ethanol and acetone;
- b) it is acidic;
- c) it keeps 70% of its activity, after being heated at 100°C for 10 minutes and it is inactivated, after being autoclaved at 121°C for 20 minutes;
- d) it is a polar substance, and is not retained in reversed-phase columns with Cosmosil 75C₁₈-OPN and Diaion HP-20;
- e) it is stable at pH of 3 to 9, but at pH 11, its activity is reduced to 60%;
- f) it is inactivated by Pronase E, but it is not inactivated by Glycosidases "Mixed"; and
- g) it is adsorbed to DEAE Sephadex A-25 ion-exchange resin (and eluted with 1000 mM KCl), but it is not adsorbed to CM Sephadex C-25.

REMARKS

This application is directed to claims 18 and 19 from the parent application. Applicants have amended these claims to more particularly define the invention. Claim 18 now makes explicitly the previously inherent character of the factor as a peptide (see specification, at 1, Field of the Invention). Claim 19 adds the inherent term "peptide" and deletes words of degree, thereby claiming the invention more precisely. Applicants request the entry of these amendments and the examination of these claims.

If there is any fee due in connection with the filing of this Preliminary Amendment, please charge the fee to our Deposit Account No. 06-0916.

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

PATENT
Customer No. 22,852
Attorney Docket No. 4853.0023-02

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: January 22, 2002

By: Rebecca McNeill

Rebecca M. McNeill
Reg. No. 43,796

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

APPENDIX TO AMENDMENT OF JANUARY 22, 2002

VERSION WITH MARKINGS TO SHOW CHANGES MADE

AMENDMENTS TO THE CLAIMS

18. (Amended) A plant growth factor peptide obtained by collecting cells from liliaceous plants, incubating the collected cells in a plant cell cultivation medium, and separating said plant growth factor peptide from the cells through centrifugation.

19. (Amended) A plant growth factor peptide, wherein the plant growth factor peptide has the following physico-chemical properties:

- a) it is [easily] soluble in water, but is hardly soluble in ethanol and acetone;
- b) it is acidic;
- c) it keeps 70% of its activity, after being heated at 100°C for 10 minutes and it is [deactivated] inactivated, after being autoclaved at 121°C for 20 minutes;
- d) it is a polar substance, and is not retained in reversed-phase columns with Cosmosil 75C₁₈-OPN and Diaion HP-20;
- e) it is stable at pH of 3 to 9, but at pH 11, its activity is reduced to 60%;
- f) it is [deactivated] inactivated by Pronase E, but [its activity] it is [still kept even when treated with] not inactivated by Glycosidases "Mixed"; and
- g) it is [strongly] adsorbed to DEAE Sephadex A-25 ion-exchange resin (and eluted with 1000 mM KCl), but it is not adsorbed [at all] to CM Sephadex C-25.

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com